

NOAA and NOAA Partnership Stations Relative to the Storm 09/03/10 8 AM 09/02/10 8 AM 09/01/10 8 AM 08/31/10 8 AM 08/30/10 8 PM MA 8 01 10E 80 San Juan, PR 🔀 Aquadilla, PF Culebra, PR Vieques Island, PR Charlotte Amalie, VI Lameshur Bay, St. Johns, Active Stations Extent TS Force Winds Christiansted Harbor, St Croix, Vì Extent Hurricane Force Winds

Storm Analysis

As of 08/29/2010 18:00 EDT, water levels across the U.S. Virgin Islands and Puerto RIco are about 0.3 to 0.6 feet above predictions.

Wind speeds are generally ranging from 5 to 10 kts with some gusts up to 22 kts at San Juan PR and 51 kts at Christiansted Harbor, St. Croix, USVI. Barometric pressures continue to descrease across the region.

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to <u>Mean Lower Low Water</u> are:

CHRISTIANSTED HARBOR, ST CROIX, VI Next predicted high tides are 0.48 ft (0.15 m) at 08/29/2010 22:07 AST and 0.62 ft (0.19 m) at 08/30/2010 13:18 AST.

LAMESHUR BAY, ST. JOHN, VI Next predicted high tides are 0.45 ft (0.14 m) at 08/30/2010 00:14 AST and 0.72 ft (0.22 m) at 08/30/2010 14:24 AST.

CHARLOTTE AMALIE, VI Next predicted high tides are 0.82 ft (0.25 m) at 08/30/2010 14:50 AST and 0.88 ft (0.27 m) at 08/31/2010 16:12 AST.

CULEBRA, PR Next predicted high tides are 0.70 ft (0.21 m) at 08/30/2010 00:22 AST and 0.94 ft (0.29 m) at 08/30/2010 14:03 AST.

ESPERANZA, VIEQUES ISLAND, PR Next predicted high tides are 0.48 ft (0.15 m) at 08/29/2010 21:24 AST and 0.54 ft (0.16 m) at 08/30/2010 16:40 AST.

SAN JUAN, PR Next predicted high tides are 1.16 ft (0.35 m) at 08/30/2010 00:29 AST and 1.58 ft (0.48 m) at 08/30/2010 14:00 AST.

AQUADILLA, PR Next predicted high tides are 1.00 ft (0.30 m) at 08/30/2010 00:10 AST and 1.31 ft (0.40 m) at 08/30/2010 12:58 AST.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:
HURRICANE EARL ADVISORY NUMBER 18 500 PM AST SUN AUG 29 2010
EARL STRENGTHENSHEADING TOWARD THE NORTHERNMOST LEEWARD ISLANDSCONDITIONS DETERIORATING SOON

WATCHES AND WARNINGS

ABOUT 240 MI E OF ST. MARTIN

Analyst:MPM

A HURRICANE WATCH IS IN EFFECT FOR...

- * U.S. VIRGIN ISLANDS
- * PUERTO RICO INCLUDING THE ISLANDS OF CULEBRA AND VIEQUES

A TROPICAL STORM WARNING IS IN EFFECT FOR...

- * U.S. VIRGIN ISLANDS
- * PUERTO RICO INCLUDING THE ISLANDS OF CULEBRA AND VIEQUES

HURRICANE CONDITIONS ARE EXPECTED WITHIN THE HURRICANE WARNING AREA...IN THIS CASE WITHIN THE NEXT 12 TO 24 HOURS. PREPARATIONS TO PROTECT LIFE AND PROPERTY SHOULD BE NEARING COMPLETION.

HURRICANE CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA...IN THIS CASE WITHIN THE NEXT 24 TO 36 HOURS.

DISCUSSION AND 48-HOUR OUTLOOK

AT 500 PM AST THE CENTER OF HURRICANE EARL WAS LOCATED NEAR LATITUDE 17.6 NORTH...LONGITUDE 59.5 WEST ABOUT 150 MI E OF BARBUDA ABOUT 240 MI E OF ST. MARTIN. EARL IS MOVING TOWARD THE WEST-NORTHWEST NEAR 14 MPH THIS GENERAL MOTION WITH SOME DECREASE IN FORWARD SPEED IS EXPECTED DURING THE NEXT DAY OR SO. A TURN TOWARD THE NORTHWEST IS FORECAST MONDAY NIGHT OR TUESDAY. ON THE FORECAST TRACK...THE CENTER OF EARL WILL PASS NEAR OR OVER THE NORTHERNMOST LEEWARD ISLANDS TONIGHT AND MONDAY.

MAXIMUM SUSTAINED WINDS HAVE INCREASED ARE NEAR 85 MPH WITH HIGHER GUSTS. EARL IS A CATEGORY ONE HURRICANE ON THE SAFFIR-SIMPSON HURRICANE WIND SCALE. ADDITIONAL STRENGTHENING IS EXPECTED DURING THE NEXT 48 HOURS AND EARL IS FORECAST TO BECOME A MAJOR HURRICANE ON MONDAY.

HURRICANE FORCE WINDS EXTEND OUTWARD UP TO 45 MILES FROM THE CENTER...AND TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 175 MILES.

ESTIMATED MINIMUM CENTRAL PRESSURE IS 978 MB...28.88 INCHES.

HAZARDS AFFECTING LAND

WIND...TROPICAL STORM CONDITIONS WILL BEGIN TO SPREAD INTO THE HURRICANE WARNING AREA DURING THE NEXT FEW HOURS...AND HURRICANE CONDITIONS ARE EXPECTED TO SPREAD INTO THE HURRICANE WARNING AREA BY MONDAY. TROPICAL STORM CONDITIONS ARE EXPECTED TO SPREAD OVER THE U.S. VIRGIN ISLANDS AND PUERTO RICO ON MONDAY...WITH HURRICANE CONDITIONS POSSIBLE MONDAY NIGHT.

STORM SURGE...STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 2 TO 4 FEET ABOVE GROUND LEVEL PRIMARILY NEAR THE COAST IN AREAS OF ONSHORE WIND WITHIN THE HURRICANE WARNING AREA...AND 1 TO 3 FEET IN THE TROPICAL STORM WARNING AREA. THE SURGE WILL BE ACCOMPANIED BY LARGE AND DANGEROUS BATTERING WAVES.

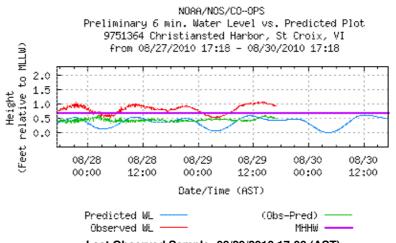
FORECASTER BROWN/BERG

Hurricane EARL QuickLook, POSTED 18:00 EDT 08/29/2010

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: Christiansted Harbor, St Croix - Water Level, Christiansted Harbor, St Croix - Winds, Christiansted Harbor, St Croix - Barometric, Christiansted Harbor, St Croix - Air/Water Temp, Lameshur Bay, St. John - Water Level, Lameshur Bay, St. John - Air/Water Temp, Charlotte Amalie - Water Level, Charlotte Amalie - Winds, Charlotte Amalie - Barometric, Charlotte Amalie - Air/Water Temp, Culebra - Water Level, Culebra - Winds, Culebra - Barometric, Culebra - Air/Water Temp, Esperanza, Vieques Island - Water Level, Esperanza, Vieques Island - Winds, Esperanza, Vieques Island - Barometric, Esperanza, Vieques Island - Air/Water Temp, San Juan - Water Level, San Juan - Winds, San Juan - Barometric, San Juan - Air/Water Temp, Aguadilla - Water Level, Aguadilla - Barometric, Aguadilla - Air/Water Temp,

Christiansted Harbor, St Croix, VI - Return to List

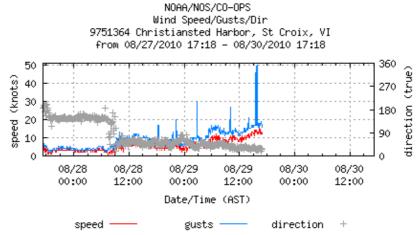


Last Observed Sample: 08/29/2010 17:00 (AST)

Relative to MLLW: Observed: 0.94 ft. Predicted: 0.43 ft. Residual: 0.51 ft.

Historical Maximum Water Level: Oct 13 2006, 0.73 ft. above MHHW

Christiansted Harbor, St Croix, VI - Return to List

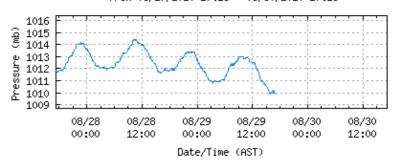


Last Observed Sample: 08/29/2010 17:00 (AST)

Wind Speed: 12 knots Gusts: 16 knots Direction: 025° T

Christiansted Harbor, St Croix, VI - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 9751364 Christiansted Harbor, St Croix, VI from 08/27/2010 17:18 - 08/30/2010 17:18



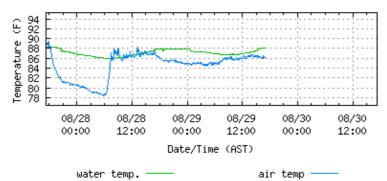
barometric pressure ——

Last Observed Sample: 08/29/2010 17:00 (AST)

Barometric Pressure: 1009.9 mb

Christiansted Harbor, St Croix, VI - Return to List

NOAA/NOS/CO-OPS Air/Water Temperature Plot 9751364 Christiansted Harbor, St Croix, VI from 08/27/2010 17:18 - 08/30/2010 17:18



Last Observed Sample: 08/29/2010 17:00 (AST)

Water Temperature: 88.0° F Air Temperature: 86.2° F

Lameshur Bay, St. John, VI - Return to List

NOAA/NOS/CO-OPS Preliminary 6 min. Water Level vs. Predicted Plot 9751381 Lameshur Bay, St. John, VI (Feet relative to MLLW) from 08/27/2010 17:18 - 08/30/2010 17:18 2.0 1.5 1.0 0.5 0.0 08/28 08/28 08/29 08/29 08/30 08/30 00:00 12:00 00:00 00:00 12:00 12:00 Date/Time (AST) Predicted WL (Obs-Pred) Observed WL MHHW

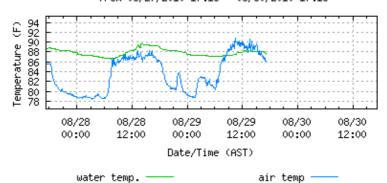
Last Observed Sample: 08/29/2010 17:06 (AST)

Relative to MLLW: Observed: 0.96 ft. Predicted: 0.41 ft. Residual: 0.55 ft.

Historical Maximum Water Level: Nov 6 2006, 0.83 ft. above MHHW

Lameshur Bay, St. John, VI - Return to List

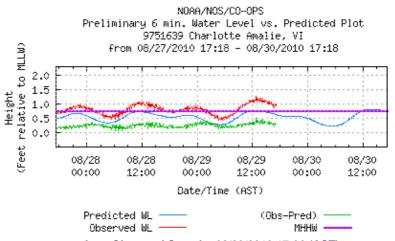
NOAA/NOS/CO-OPS Air/Water Temperature Plot 9751381 Lameshur Bay, St. John, VI from 08/27/2010 17:18 - 08/30/2010 17:18



Last Observed Sample: 08/29/2010 17:06 (AST)
Water Temperature: 87.6° F Air Temperature: 86.2° F

7

Charlotte Amalie, VI - Return to List



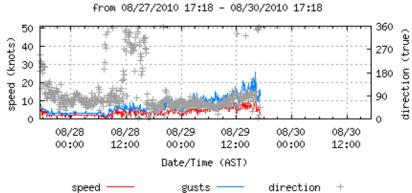
Last Observed Sample: 08/29/2010 17:06 (AST)

Relative to MLLW: Observed: 0.94 ft. Predicted: 0.64 ft. Residual: 0.30 ft.

Historical Maximum Water Level: Sep 16 1995, 2.93 ft. above MHHW

Charlotte Amalie, VI - Return to List

NOAA/NOS/CO-OPS Wind Speed/Gusts/Dir 9751639 Charlotte Amalie, VI Prom 08/27/2010 17:18 - 08/30/2010 17:18

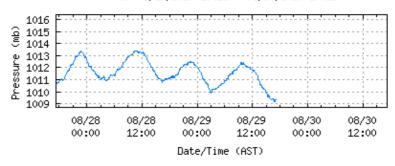


Last Observed Sample: 08/29/2010 17:06 (AST)

Wind Speed: 3 knots Gusts: 16 knots Direction: 044° T

Charlotte Amalie, VI - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 9751639 Charlotte Amalie, VI from 08/27/2010 17:18 - 08/30/2010 17:18



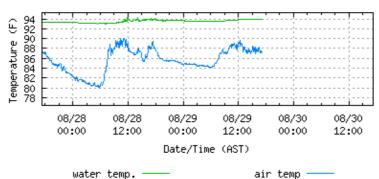
barometric pressure ----

Last Observed Sample: 08/29/2010 17:06 (AST)

Barometric Pressure: 1009.3 mb

Charlotte Amalie, VI - Return to List

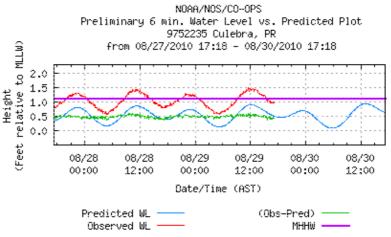
NOAA/NOS/CO-OPS Air/Water Temperature Plot 9751639 Charlotte Amalie, VI from 08/27/2010 17:18 - 08/30/2010 17:18



Last Observed Sample: 08/29/2010 17:06 (AST)

Water Temperature: 93.9° F Air Temperature: 87.3° F

Culebra, PR - Return to List

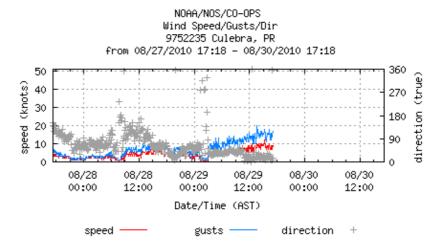


Last Observed Sample: 08/29/2010 17:06 (AST)

Relative to MLLW: Observed: 0.97 ft. Predicted: 0.52 ft. Residual: 0.45 ft.

Historical Maximum Water Level: Nov 6 2006, 0.86 ft. above MHHW

Culebra, PR - Return to List

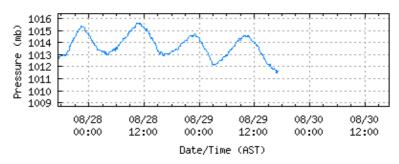


Last Observed Sample: 08/29/2010 17:06 (AST)

Wind Speed: 9 knots Gusts: 17 knots Direction: 013° T

Culebra, PR - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 9752235 Culebra, PR from 08/27/2010 17:18 - 08/30/2010 17:18



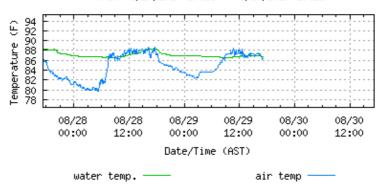
barometric pressure ——

Last Observed Sample: 08/29/2010 17:06 (AST)

Barometric Pressure: 1011.6 mb

Culebra, PR - Return to List

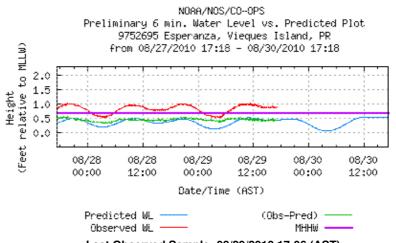
NOAA/NOS/CO-OPS Air/Water Temperature Plot 9752235 Culebra, PR from 08/27/2010 17:18 - 08/30/2010 17:18



Last Observed Sample: 08/29/2010 17:06 (AST)

Water Temperature: 86.7° F Air Temperature: 86.4° F

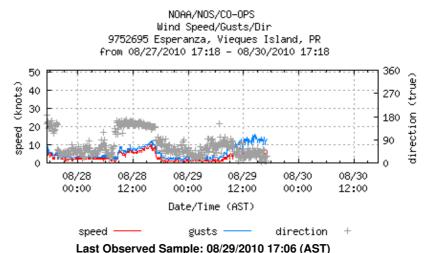
Esperanza, Vieques Island, PR - Return to List



Last Observed Sample: 08/29/2010 17:06 (AST)

Relative to MLLW: Observed: 0.90 ft. Predicted: 0.45 ft. Residual: 0.45 ft. Historical Maximum Water Level: Oct 13 2006, 0.83 ft. above MHHW

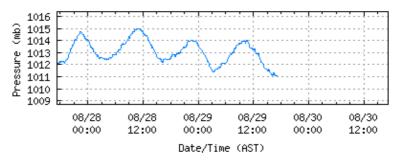
Esperanza, Vieques Island, PR - Return to List



Wind Speed: 7 knots Gusts: 13 knots Direction: 025° T

Esperanza, Viegues Island, PR - Return to List

NOAA/NOS/CO-OPS
Barometric Pressure Plot
9752695 Esperanza, Vieques Island, PR
from 08/27/2010 17:18 - 08/30/2010 17:18



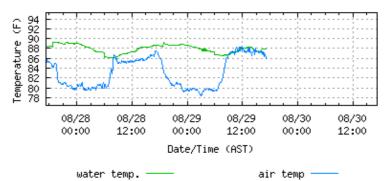
barometric pressure ——

Last Observed Sample: 08/29/2010 17:06 (AST)

Barometric Pressure: 1011.1 mb

Esperanza, Vieques Island, PR - Return to List

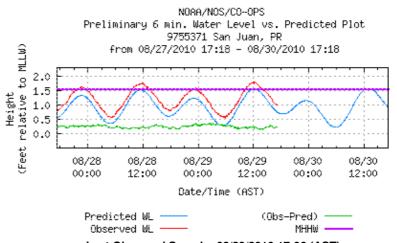
NOAA/NOS/CO-OPS Air/Water Temperature Plot 9752695 Esperanza, Vieques Island, PR from 08/27/2010 17:18 - 08/30/2010 17:18



Last Observed Sample: 08/29/2010 17:06 (AST)

Water Temperature: 87.8° F Air Temperature: 86.0° F

San Juan, PR - Return to List

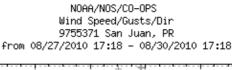


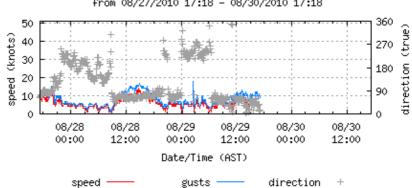
Last Observed Sample: 08/29/2010 17:06 (AST)

Relative to MLLW: Observed: 1.01 ft. Predicted: 0.77 ft. Residual: 0.24 ft.

Historical Maximum Water Level: Sep 21 1998, 1.21 ft. above MHHW

San Juan, PR - Return to List



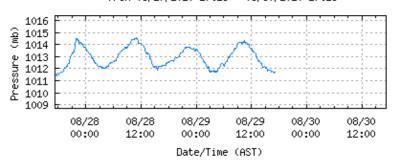


Last Observed Sample: 08/29/2010 17:06 (AST)

Wind Speed: 5 knots Gusts: 9 knots Direction: 013° T

San Juan, PR - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 9755371 San Juan, PR from 08/27/2010 17:18 - 08/30/2010 17:18



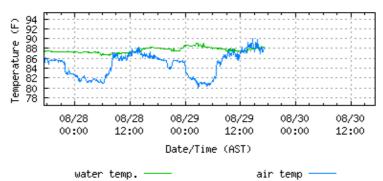
barometric pressure ----

Last Observed Sample: 08/29/2010 17:06 (AST)

Barometric Pressure: 1011.7 mb

San Juan, PR - Return to List

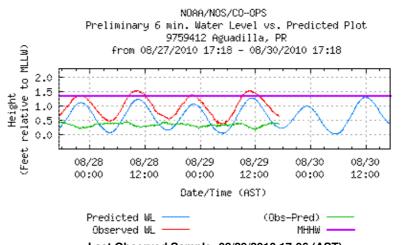
NOAA/NOS/CO-OPS Air/Water Temperature Plot 9755371 San Juan, PR from 08/27/2010 17:18 - 08/30/2010 17:18



Last Observed Sample: 08/29/2010 17:06 (AST)

Water Temperature: 88.2° F Air Temperature: 88.0° F

Aquadilla, PR - Return to List



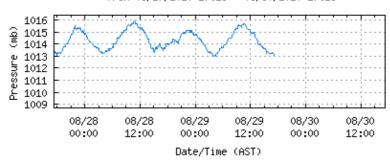
Last Observed Sample: 08/29/2010 17:06 (AST)

Relative to MLLW: Observed: 0.64 ft. Predicted: 0.25 ft. Residual: 0.39 ft.

Historical Maximum Water Level: Oct 28 2007, 0.95 ft. above MHHW

Aguadilla, PR - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 9759412 Aguadilla, PR from 08/27/2010 17:18 - 08/30/2010 17:18

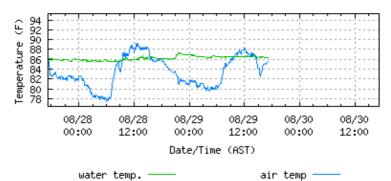


barometric pressure ——
Last Observed Sample: 08/29/2010 17:06 (AST)

Barometric Pressure: 1013.1 mb

Aguadilla, PR - Return to List

NOAA/NOS/CO-OPS Air/Water Temperature Plot 9759412 Aguadilla, PR from 08/27/2010 17:18 - 08/30/2010 17:18



Last Observed Sample: 08/29/2010 17:06 (AST)

Water Temperature: 86.4° F Air Temperature: 85.5° F
Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS)
National Oceanic and Atmospheric Administration | U.S. Department of Commerce